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OBSERVATIONS
ON THE
PRESENT STATE,
AND
POSSIBLE IMPROVEMENT
OF THE
NAVIGATION AND GOVERNMENT
OF THE
RIVER THAMES.

By FREDERICK PAGE, Esq.

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OBSERVATIONS, &c.

THE advantages which arise from inland navigation are at length universally acknowledged, and almost generally understood. The increase of the home consumption has been equal to that of foreign commerce, and to accommodate internal communication rivers have been made navigable, and where nature has denied them, the invention and labour of man has substituted artificial rivers or canals. The communication between the western counties and London has been very greatly

facilitated by the improvements already made in the navigation of the river Thames; but that navigation is far from the perfection of which it is capable, and from the public discussion the question has lately undergone, I may be justified in the assertion, that whatever difference of opinion may have existed respecting the mode of improvement, those who are interested in the trade which passes on it are unanimous in their sentiments of its necessity. I trust therefore the magnitude of the object will sufficiently justify the present publication, which may afford some hints to those who are desirous that the subject should receive a full and candid investigation.

The best possible mode of inland navigation is a conveyance with the tide or stream, in which case no horses are required to hawl or tow the vessel, and consequently

frequently the navigator is at no greater expence than that which necessarily arises from the wear of his vessel and the wages of his men. In that part of the river between London and Putney, where this mode of navigation is used, being wholly within the *tide-way*, the *freight* or price of carriage is very inconsiderable.

But the trade within the tide-way bears no proportion to that conveyed along the whole extent of the river from the western counties, which has already been much encreased, by the communication opened with Wales, &c. by the Thames and Severn, and which will probably receive a greater augmentation by that to be opened with Bristol by the Kennet and Avon canals.

Above

Above the *tide-way*, the river Thames from Letchlade, where it first becomes navigable, flows with an equal stream, its mean velocity being about two miles in an hour, in something less than which time a barge or vessel will descend with the stream in good water.

For a *downward* voyage, therefore, no better mode of navigation can be found, as it possesses that advantage which is enjoyed by vessels which navigate only in the *tide-way*. But unfortunately the same cause which assists the navigation in one direction, obstructs it in another.

The stream which favours the *downward* is adverse to the *upward* voyage, and to overcome its resistance, artificial means must be made use of; recourse is therefore necessarily had to the practice of hauling or towing, by men or by horses, but that
of

of towing by men, except in a few particular instances, is in general disuse*.

When, therefore, a barge, in its passage from London upwards, arrives at Putney, it becomes necessary to make use of horses. In summer, when the tide flows very far upwards, on account of the inconsiderable

• The complaint which is so general against bargemen, has arisen from the custom, now disused, of towing the barges with men, who were under the denomination of *bargemen*, but were in reality only the idle unsettled vagabonds of the neighbourhood, and who, returning in numerous bodies, committed various petty depredations on the banks of the river. These men have been superseded by the custom of towing with horses: but the complaint has survived the grievance, and the inconvenience of having bargemen in the neighbourhood, serves as a word of alarm, with the ignorant or interested enemies of improvement.

quantity

quantity of the *land water*, (or that which flows down from the country) a barge of 150 tons requires seldom more than one horse, although, in winter, three and even four are necessary to draw it to Richmond; but from Richmond to Letchlade, the number varies according to circumstances, being on an average about twelve.

The Thames also suffers from those disadvantages proportionably attendant on all rivers, namely, the uncertainty of navigation, arising from the inequality of water, sometimes superabundant, sometimes deficient. In winter, floods overflow the banks, and thereby render the *towing-paths* for the horses difficult and dangerous: in summer, a loaded barge is frequently unable to pass over the shoals, and is obliged to recur to the expensive practice of lighting, or shifting its goods.

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As from obvious natural impediments the stream above the *tide-way* cannot be made to favour the *upward* voyage, a still or *dead water* is the best mode of navigation that can be substituted to it, and in that mode the remedy for the inconveniences arising from the resistance of the stream in the *upward* voyage must eventually be found.

The utmost exertions hitherto made by the commissioners have been to obviate the difficulty and danger occasioned by floods, and the delays produced by shallows; and they have erected *pound locks*, which by *penning* or restraining the water to a certain navigable height, have in a great degree corrected the evils to which river navigation is liable. If the course of the Thames from Letchlade to London was perfectly straight, I am confident no mode of improvement would be preferable to the

the continuance of that hitherto adopted, but when the circuitry of the river is taken into consideration, it appears to be an injustice to the trade, which is its support, to stop at improvements manifestly so short of perfection. In artificial canals the inconvenience of floods is obviated by the admission only of a quantity of water adequate to the purposes of navigation, and the expence of towing is considerably lessened by substituting to a rapid stream a dead or still water. These are the principles of the general advantages which attend canal navigation, and which apply with great force under the peculiar circumstances of the Thames, as may be easily understood by reference to the map; since in the *upward* voyage, by the lines of canal, which may be easily drawn from certain points, a great distance, and consequent expence of towing will be saved.

The distances in the whole from Letchlade
to London by the Thames, being 155 Miles.

And if the canals are made 104

Distance saved 51

From Reading to London by the Thames ... 78

And if the canals are made 45

Distance saved 33

by Land

77

39

The lines of these canals are from Hart's-ferry, above Oxford, to Abingdon, and from the Kennet's mouth to Isleworth, crossing the Thames near Windsor.

As these canals are not intended to oppose, but to favour and preserve the trade of the Thames, they should be put under the same authority by which the Thames itself is directed. And as I am sensible that " sufficient powers have not been
" given

" given to the commissioners to make the
 " navigation so perfect as it is capable of
 " being made, and the public interests
 " require, and that it never can be ma-
 " naged to the greatest advantage under
 " the numerous body of commissioners so
 " constituted as at present*, I will endea-
 vour to explain the causes of the errors
 and mismanagement which have arisen in
 the government of the Thames, and im-
 peded its progress to perfection.

Weirs or flash locks, imperfect and in-
 convenient as they are proved to be, were
 for near two centuries the only artificial
 means made use of to correct the natural
 disadvantages of river navigation. These
 weirs were in the occupation of indivi-

• Report of the Committee of the House of Com-
 mons, p. 57.

duals,

duals, for whose extortions there was no redress, until an act was obtained (6 and 7 Will. 3, c. 16.) which empowered the justices of the peace for the respective counties bordering on the Thames, to regulate the tolls or the tonnage to be paid by each vessel, on passing through the weir.

This statute, which was temporary, was revived and amended by stat. 3, Geo. 2. c. 11. By these means the abuses of the lock-owners were in some degree corrected; but the inconveniences of the navigation still remained, nor was it till 1771 that it received the hitherto neglected improvement of pound locks. The same statute which prescribed the amendment of the navigation, vested the power of control over the owners of the old locks or weirs, and the necessary powers for the improvement of the navigation by pound locks, in certain persons, whose qualifica-

B

tions

tions are thus described: “ All members
 “ of the House of Commons for the time
 “ being, who do or shall reside within the
 “ counties of Wilts, Gloucester, Oxford,
 “ Berks, Bucks, Surrey and Middlesex,
 “ the representatives in Parliament for
 “ the said counties for the time being,
 “ the representatives in Parliament of the
 “ city of London and all the towns within
 “ the said counties for the time being, the
 “ lord mayor and aldermen of the city
 “ of London for the time being, the high
 “ bailiff of Westminster for the time being,
 “ the vice-chancellor and heads of colleges
 “ or halls in the university of Oxford for
 “ the time being, the dean and canons of
 “ Christ Church for the time being, the
 “ dean and prebendaries of Westminster
 “ for the time being, the dean and resi-
 “ dentiaries of St. Paul’s London for the
 “ time being, the dean and canons of
 “ Windsor for the time being, the provost
 “ and

“ and fellows of Eton college for the time
 “ being, the rectors and incumbents for
 “ the time being of the several parishes
 “ that border upon the Thames, the
 “ mayors and recorders of Oxford, Abing-
 “ don, Wallingford, Reading, Henley,
 “ Maidenhead and Windsor, and the bai-
 “ liffs and recorder of Kingston-upon-
 “ Thames for the time being, the trustees
 “ or commissioners of the river Wey, the
 “ proprietors of the said river, the mayor,
 “ aldermen and recorder of Guilford, the
 “ bailiffs of the town of Godalming, and
 “ all persons who do or shall reside,
 “ or have an estate of 100l. per annum
 “ within the respective counties of Mid-
 “ dlesex, Surrey, Berks, Bucks, Oxford,
 “ Gloucester and Wilts, shall be and are
 “ hereby constituted commissioners for
 “ putting in execution all and singular
 “ the powers in this act contained, &c.
 “ &c.” And also every person so resident,

“ who shall be possessed of a personal
 “ estate to the amount of 3000l.” (Stat. 11,
 Geo. 3. c. 45.)

The qualification of the commissioners is of so general a nature as to include by much too large a number, and in consequence of their numbers, they are individually sheltered from responsibility. This circumstance must have caused the arbitrary mode in which various measures have been carried into execution. It is a fact too well known to require, though it would be invidious to point out, any particular instance, that at a meeting to discuss any question which may be probably decided by a majority of votes, those who have influence sufficient to procure their attendance, bring with them persons who have indeed the necessary qualifications, but who are totally ignorant of the merits of the question on which they are to decide,
 who

who act as commissioners at the meeting where they are first sworn in, and vote according to the directions of those by whom they are influenced.

This error proves extremely mischievous, when it operates in particular districts, to the general prejudice of the whole navigation. By the statute 11, Geo. 3. c. 45, the quarterly meetings are appointed to be held at certain towns situate on the banks of the river. Those who have taken an active part in the execution of their duty as commissioners, have contrived to adjourn those meetings to some town where they have some peculiar interest or influence, and to make the general good of the navigation subservient to the advantage of that town or neighbourhood.

No

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No very attentive observation of human nature is sufficient to prove that disinterestedness, however valuable, is rarely to be met with, and that in the common occurrences of life the ostentation of public spirit is generally the shallow artifice of those who are actuated only by the selfish motives of private interest. It could not be expected, therefore, nor has it happened, that under so loose a qualification, so indeterminate a power as the present commissioners act, they will attend the meetings from views purely disinterested. If consistent with their own interest, they consult the welfare of the navigation, the fallacious display of public spirit, which is oftener talked of than felt, may be easily excused. The clause of the stat. 11, Geo. 3: c. 45*, if strictly observed, would very much

* " No commissioner or commissioners shall act in
 " the execution of this act, or any of the powers
 " herein

much reduce the numbers of those who act as commissioners, who may in general be comprized under the following descriptions:

1. Owners and occupiers of land on the banks of the river.
2. Navigators.
3. Owners and occupiers of old locks or weirs, owners and occupiers of private towing paths, renters of bridge tolls, &c. &c.
4. Creditors who advanced money for the erection of pound locks on the security of the tolls, under the act 11, Geo. 3. &c.
5. Millers.

“ herein contained, where he or they is or are any
“ ways particularly interested, under the penalty of
“ one hundred pounds, &c. &c.”

I believe,

I believe, that under these heads may be comprized all persons who acted as commissioners previous to January 15, 1794, when a seeming innovation, calculated to answer a particular purpose, then from circumstances apparently rendered necessary, was made in the proceedings.

The commissioners whose jurisdiction extends only to the City Stone, near Stanes, were restricted by the stat. 11, Geo. 3. c. 45, from erecting any pound locks below a lock called Boulter's, about half a mile above Maidenhead bridge, although serious inconveniences and obstructions to the navigation exist in many places within their jurisdiction below that place. Sometime in the year 1793 a scheme was revived of making a canal from Boulter's Lock to the Rails Head at Isleworth, the ostensible reason of which arose from the great inconveniences and delays in the navigation

navigation below Boulter's, which was then asserted to be what it really is, the worst part of the river, because the least improved. As far as the commissioners could, under the uncertain and inconvenient powers with which they are invested, exert themselves, they endeavoured to obtain from the legislature the repeal of the restrictive clause, and to make that part of the river complained of, within their jurisdiction, as good as possible. They therefore, after consultation with their surveyors, resolved, as the best mode of improvement they could adopt, to erect two pound locks—one in the Cuckow Weir stream, about a mile above Windsor bridge, and another in the King's Engine stream, about half a mile below it. In the mean time the gentlemen interested in the *Boulter's Lock* (or as it has since been called the *London*) canal, applied to the commissioners at their meeting at Windsor,

to

to offer terms which they conceived consistent with their own advantage and that of the river. The commissioners not thinking themselves authorized to treat with the undertakers of a canal, which appeared adverse to the interest of the Thames, refused to enter into any communication with them, and the plans of improvement of the Thames by pound locks, and of making the *London* canal, proceeded in direct opposition and hostility to each other; but in the body of commissioners a number of individuals were found favourable to the *Boulter's Lock canal*, and who therefore exerted the legal powers they had, to disconcert the plans formed by that part of the commissioners who had adopted the plan of improvement by *pound locks*. At a meeting held at Oxford, the influence of the *canal* party prevailed so far as to adjourn the meeting to London; and at the first meeting in London the
 resolu-

resolutions of the commissioners relative to the improvement by pound locks were rescinded, and the number of those who attended and were supposed favourable to the canal, overbalanced those of the five descriptions abovementioned, who may be said to be more intimately connected with the preservation of the navigation of the Thames. Unhappily the result of these differences appeared to have a tendency fatal to the real interests of the river, as the parties thus hostile and opposed to each other could see on one side nothing but bigotry to existing abuses, and on the other merely the selfish schemes of interested speculation. It had not been known, or it was forgotten, that if the arguments used by the favourers of the *London* canal were admitted as valid, namely, that it reduced the circuitous course of the Thames, and substituted a dead and still water to a rapid stream in the upward voyage,

voyage, (for it was always admitted that the Thames itself would afford the cheapest and easiest conveyance in a downward voyage) those arguments equally applied to the canal, which was as practicable from the Kennet's mouth to Windsor, and from thence to Isleworth. At length, after some warm discussion, the meeting, aided by the moderation and candour of the gentleman* who presided, entered into resolutions of appointing a committee to take into consideration the state of the river from Reading to Isleworth. This committee met and determined, that an engineer of experienced and approved abilities should make a survey of that part of the river, and report to a general meeting what, in his opinion, would

* Mr. Alderman Skinner.

be the best mode of improvement. In entrusting the survey to Mr. Rennie, the meeting consulted the interests of the public, and I am inclined to hope and to expect, that the result of his report will be such as to reconcile and to accommodate all parties. If he should recommend canals, and explain the practicability of them, I would suggest the following hints for their regulation, as connected and consolidated with the government of the Thames; which I am confident myself, and which I hope I have proved to the conviction of others, demands some effectual alterations and amendment.

From a general and well known principle of justice, which implies, that for money expended a valuable consideration is received, it may be asserted, that the tolls collected from vessels navigating only

C

on

on particular districts of the river ought to be expended in repairing the navigation only within the particular districts on which they are navigated, and not be applied to the amendment of that part where they never pass. In confirmation of the errors asserted to exist in the present government of the Thames, I need only call the attention of those who are conversant in the business to the additional tolls that have been laid on the locks below Reading to pay the interest of a debt incurred by making pound locks above Oxford, so that the trade which pays the interest of the money has never received the least benefit from the expenditure of the principal*. Considered in no other view than as subservient

* In the year , 264l. was the total collection at the five pound locks above Oxford, the making of which locks cost 13,738l. 7s. 3d.—R. H. C. p. 17.

to the purposes of commerce, the Thames should be regulated in a manner similar to artificial rivers or canals. The Thames from the City Stone to Reading receives no intermediate influx of trade; it there communicates with the river Kennet, the trade of which river will most probably receive a great increase from the canal proposed to join with it at Newbury, and extend from thence to Bristol, for the effecting of which extention a bill was obtained in the last session of Parliament. The other influx of trade is from the Thames and Severn canal*: I therefore deduce the propriety of dividing the Thames into two districts.

* " The Thames and Severn trade is expected to
 " be very much increased by the canals now forming
 " to communicate with the Severn."—Rep. H.
 C. p. 24.

C 3.

I. From

1. From the Letchlade to the Kennet's Mouth.

2. From the Kennet's Mouth to the City Stone.

I have before declared (p. 19) what description of persons, as peculiarly interested, attend the meetings of the commissioners. To simplify that body, the lock-owners, owners of private towing paths*, &c. should be compelled to dispose of their respective interests, because, under the present system, tolls being collected only at the pound locks and the adjoining old locks, many vessels navigate the river between the

* Vide Report of Committee appointed June 24, 1789, for the inconveniences arising from the private towing-paths.

several locks, and for fifteen miles below the lowest (viz. *Boulter's*) lock, which pay no toll at all. The carriage between London and the towns of Maidenhead and Windsor, which amounts at least to 20,000 ton of goods annually, bears no share of the expence incurred by the repairs of the river. By buying, therefore, the old locks, &c. and throwing the whole into a general fund, the tolls may be apportioned by collecting a certain sum per mile. The whole expences of tonnage at present on the average, from Letchlade to Boulter's Lock, are one farthing and one third per ton per mile. If there appears to be any hardship in thus compelling the lock-owners to dispose of their property, it must be remembered, that by the present statutes the commissioners are conceived to be fully invested with this power, which they have lately exerted, by entering into treaties, with some of the lock-owners for that pur-

pose. At the same time it would be an injustice to the lock-owners not to suffer them to let the value of their respective locks, &c. remain as a part of the general aggregate debt on the river, if they thought it an advantageous speculation. Whatever additional subscription might be deemed necessary should be borrowed on the credit of the tolls; and the subscribers to this plan, and creditors of the 50,000*l.* originally advanced to build the pound locks will then constitute a part of the commissioners under the new constitution, to be called *creditors*.

In canal bills, commissioners are generally appointed to arbitrate between the owners of land and the undertakers of the canals, and are conceived to constitute a body, which, acting for the land-owners, maintains their right against the undertakers. From the eventual mischief that
might

might arise to the land-owners, if persons interested only in supporting the navigation were vested with the entire control, it is right to incorporate their interests with the general body of commissioners, by giving to every owner of lands *situated immediately on the banks of the river* a vote or votes in proportion to the respective length of their lands. When to these are added the millers, there will be formed a second division of commissioners under the new system to be denominated, and to vote as *land-owners*.

Having thus disposed of the present interests of the Thames, I proceed to the consolidation of the government of the canals with that of the river.

The interest of the money to be raised by subscription for the making of these
canals,

canals, ought to be limited to a certain rate. This kind of limitation is new; but no canal has been made or proposed under circumstances similar to the present. Canals to be made where no water communication has before existed, ought to hold forth every advantage to the speculator who is induced to subscribe to them; but where they are made, as in this instance, under the absolute certainty of the upward trade of the Thames, a limitation of interest is justice to the public.

This limitation of interest also tends to the accomplishment of the most material object, viz. that of a *free navigation*, for the surplus of the tolls will eventually be sufficient to reduce the present debt on the Thames, and consequently reduce the tolls on the river and the canals.

These

These *subscribers to the canals* will then form a third body, to whose direction the river ought to be intrusted.

These three different bodies thus constituted, would be as numerous perhaps as the present commissioners; but the largeness of their assemblies should be prevented by a delegation of their powers to a committee of management, to be chosen in each district, and to consist of an equal number of each of the three elective bodies; annual elections would at the same time secure the general power to the electors at large, and render the committee responsible to them for the errors or neglects in its proceedings.

I have purposely avoided any remarks or observations applicable to the management of that part of the river vested by the

the stat. Geo. 11, c. in the city of London: but as the *London* canal was supposed to be under the protection of the city, and received the decided approbation at a public meeting of some of the most eminent merchants in it, I hope that nothing contained in this pamphlet will be misconstrued as interfering with their jurisdiction. In respect to what has been done upon the river by the committee of navigation of the city of London, the wisdom and justice of their proceedings cannot be sufficiently applauded, as they have expended a sum from their private funds for the purpose of buying up the private towing paths, and have apportioned the tolls according to the distances navigated by the vessels.

To impress on the public mind the facts and arguments which have induced me to form the opinion I have above stated, I
will

will recapitulate the general heads of the information I would wish to convey.

1. In respect to the improvement of the *navigation.*

That the best mode of navigation is with the tide or stream.

That a conveyance with the stream is obtainable by the Thames, and therefore most desirable in the downward voyage.

That as the stream cannot be made to favour the upward voyage, the best substitute for the stream is a dead or still water.

That a dead water is obtainable by means of canals.

And

And therefore under the peculiar circumstances of the Thames canals, 1. from Hart's-ferry to Abingdon, 2. from Reading to Windsor, 3. from Windsor to Isleworth, are the modes of improvement which can most successfully be adopted.

2. In respect to an amendment in the *government* of the Thames.

The errors are,

That the commissioners are too numerous.

That their qualifications are too loose.

That the exertions of persons really interested are restrained by the power of those who act under secondary influence:

Therefore the powers should be vested in the persons who are really interested,
viz.

viz. 1. the creditors, 2. land-owners, 3. subscribers to the canals which are to be consolidated with the old river.

And that the river and canals should be divided into two districts, corresponding to the two distinct influxes of its trade.

Although calculations are sometimes fallacious, and always uncertain, yet, that the public may receive every information in my power to give them, I will add the following statement, founded on the best authority I could procure.

The data on which this calculation is formed are Mr. Allnutt's evidence before the committee of the House of Commons, in which he states the average of the tonnage above Boulter's lock to be

Per annum 60,285 tons.

Length of the canals supposed 32 miles.

D

Present

	Tons.	Tons.
Present tonnage within the jurisdiction of the commissioners above Boultoners,	60,285	

Add for Windsor and Maidenhead,	9,715	
		70,000

Probable increase by the Thames and Severn, and Kennet and Avon canals, will be	30,000	
		100,000

If the distance from Reading to Windsor by the canals is 14 miles, there will be conveyed on it upwards the whole tonnage of 100,000, except the intermediate tonnage from Reading to Maidenhead, deduct for that trade 30,000, and the remainder

will

will be 70,000.—70,000
tons on the canal from Rea-
ing to Windsor, 14 miles at
three halfpence per ton per
mile, will produce per ann. 6,819 13 4

100,000 tons on the canal from
Windsor to Isleworth, sup-
posed 18 miles, will produce
at three halfpence per ton
per mile, 11,250

18,069 13 4

The expence of making 32
miles of canal at 5000l. per
mile, will be 160,000l.; the
interest of which sum at $7\frac{1}{2}$
per cent. will be 12,000

Add for repairs, &c. 3,000

15,000

Surplus 3,069 13 4

D 2

To

To the practical navigator on the Thames, I offer no arguments of the utility of these canals, as he must be convinced that the time, labour and expence saved by the vessels being towed 32 miles in the voyage from London to Reading in a dead and still water, instead of 78 against a rapid stream, will more than balance the moderate expence of the tonnage on the canal, which, according to the above calculation, will certainly be lessened every year.

I HAVE stated from facts, which are as certain as the fallibility of human evidence will allow, arguments which to my mind convey the most perfect conviction. These observations are well meant, and if any mistakes are discoverable, let them be imputed to a defect in judgement, or any other cause than the want of a good intention. In the conflict
of

of the various jarring interests with which the subject I have discussed is connected, I cannot flatter myself that the idea of perfection I have here depicted will be ever consummated, or that the cool ideas of the closet will be adopted by the hasty decisions of a public meeting. Of this, however, I am certain, that from the spirit of improvement which is gone forth, the Thames will, in some degree, receive its share of advantages; and if to the amendments in its government or navigation any remarks contained in this pamphlet shall have afforded the smallest hint, I shall not consider myself as having written in vain.

FINIS.

of the various jarring interests which
the subject I have discussed is connected
I cannot but feel myself somewhat
perplexed. I have been depicted well by
every commentator, and that the root-cause
of the whole will be adopted by the many
visions of a public meeting. Of this
however I am certain, that from the first
of its existence which is gone down, the
Fountain will be a fine figure, and give it
the appearance of a second
man in its own or magnification
and in the history of the painting
shall have all the best that I
shall not consider it as having written
in vain.



